

NUTRITION, CHILDREN AND HEALTH*

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PARTICIPANTS IN THE CONFERENCE today have provided us both with a significant body of information and the stimulation to think and to work harder about problems in children's environments and diet. I shall try to summarize briefly some of the information and, if possible, some of the inspiration.

Mrs. Cuomo started us off by drawing attention to the fact that 800,000 children in New York City are receiving the New York lunch program and 90,000 the breakfast program. This is an impressive government contribution to children's nutritional well being. Drs. Winick and Karp reminded us that we cannot separate the scientific from the practical aspects of nutrition without placing the concepts in the context of the socioeconomic environment. Overcoming poverty and the vicious cycle that it initiates continues to confront those of us who care for children.

Dr. Susser's talk reminded us of the principles of basic epidemiology and the difficulty in tracking a causal chain. Epidemiologic data standing alone do not prove causation.

Dr. Lozoff provided an excellent summary of the issues concerning the relationship of iron nutrition to cognitive function. A careful review of her presentation indicates the path to future research for resolution of the question of the relationship between these two factors.

Dr. Rosen presented an elegant methodology to further our information about lead poisoning. What he didn't say but I know he understands very well is that this totally preventable condition does not yield to our efforts because the political pressure of the moneyed real estate interests keeps our politicians from taking the necessary steps to eliminate this scourge. Instead of dealing with the cause, we use poisoning of children as the marker for defective housing.

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The second half of the conference presented a series of discussions relating to the role of pediatricians in preventing or at least limiting chronic adult diseases associated with atherosclerosis. Dr. Kwiterovich gave an elegant presentation of the pathophysiology embraced by what is now called the lipid hypothesis. He helped to clarify the role of the strong genetic component and spoke of ways to moderate the genetic influences by environmental manipulation, particularly the diet. Pediatricians dealing with this issue must proceed differently from our colleagues in adult medicine because we deal with a growing population rather than an aging one. The nutrient needs of children, including energy and minerals, necessarily exceed those per unit of weight of the adult (and the minerals per unit calories). Recommendations must display a balance between promoting optimal growth and delaying or perhaps even preventing early changes of atherosclerosis.

Some workers in the field have attacked this problem of preventive cardiology as though one could eliminate heart disease as a cause of death. I am reminded of a quotation emanating from the Centers for Disease Control (I think by Dr. Langmuir) "Come what may, there will always be 10 leading causes of death." A more legitimate and proper objective is to delay the onset of these degenerative changes of aging, and that must indeed be a reality.

Dr. Lauer described his important studies in Muscatine, Iowa, which give us important benchmarks in making decisions about appropriate strategy for care of children and adults. In addition to the physician's traditional role in taking care of an individual patient, it seems clear that a population strategy will exert more leverage than one could hope for with an individual approach. What is meant by a population strategy is that we recommend a prudent diet for everyone, appropriate for age. This has the effect of shifting the cholesterol levels of the entire population in such a way that the maximum number of individuals are offered whatever benefits there may be from such a diet. We can argue what the diet should be but we have now reached the point at which the arguments about 30 or 35% fat are essentially quibbles.

In addition, we need an individual strategy for high risk individuals. We now have to think of how we are going to identify these and to define what we mean by high risk. Ultimately, being able to identify the genes the individual possesses will provide this answer. In possibly another decade we can come close to this. For the present we must rely on more indirect methods, but these too have become more sophisticated and can be more properly utilized.

Dr. Leibel gave a very exciting talk on obesity and presented some important information new to many of us. He gave us several important facts, one in particular, that 20% of all American children at the present moment can be classified as obese.

Dr. Ingelfinger reviewed our knowledge of hypertension in children and pointed out how much we don't know. It was interesting that she referred back to data of nearly 100 years ago in evaluating sodium intake as a variable with potassium intake rather than considering sodium salts in isolation. She further revisited a point made by James Gamble many years ago that the chloride ion is really more important in determining extracellular fluid volume than the sodium ion. We physicians and physiologists have preferred to talk about sodium because there are two major equilibria involving chloride, thus making sodium simpler to use in our examples. When it comes to the effect on blood pressure and volume, however, it is the chloride ion that is the critical one.

Finally, we turned in our discussion to nutrition education. All of us—physicians and laymen—are bombarded these days about nutrition. Some of the bombardment is sound, much of it is a great deal more tenuous, and some of it is humbug. It is my personal belief that physicians have the obligation to be scholarly enough to distinguish among these. We should not rely upon government reports to inform us about nutrition but use them rather as educational tools to help us to educate our patients. A prominent pediatrician was quoted by one of our speakers as saying that all young children should take vitamin pills. I hope that it isn't true that he said that, but if he did, I have no hesitation in saying that I believe that to be wrong, certainly not helpful in caring for children or in educating the public.

I know that I have profited considerably from this day and I trust that those of you who have attended share that feeling with me. I further hope that readers of this compilation will similarly benefit.